

Preface

This collection is part of the Queen Mary Studies in Intellectual Property series published by Edward Elgar. We were invited by Professor Graham Dutfield to edit a collection on intellectual property and emerging technologies in the life sciences. Having explored gene patents and stem cell patents in our research, we were particularly keen to explore new challenges posed by paradigm shifts in biology. In 2009, the National Research Council of the National Academies deployed the term ‘New Biology’ to capture the convergence and integration of the various disciplines of biology:

The essence of the New Biology, as defined by the committee, is integration – re-integration of the many sub-disciplines of biology, and the integration into biology of physicists, chemists, computer scientists, engineers, and mathematicians to create a research community with the capacity to tackle a broad range of scientific and societal problems. Integrating knowledge from many disciplines will permit deeper understanding of biological systems, which will both lead to biology-based solutions to societal problems and also feed back to enrich the individual scientific disciplines that contribute new insights.¹

We invited a number of the pre-eminent researchers and scholars to explore future trends and developments in a cluster of emerging scientific disciplines – including biodiscovery, genomics, medicine, bioinformatics, synthetic biology, RNA interference, stem cell research, nanotechnology, traditional knowledge, genetically modified crops, and clean technologies. Given the interdisciplinary nature of the topic, the contributors are drawn from an array of fields. Moreover, given the international, collaborative nature of large-scale biology projects, we have gathered together researchers from the four corners of the globe.

This book was written at the Australian National University (ANU) College of Law. We are thankful for the outstanding support and leadership of this institution – including the Dean, Professor Michael Coper, the Associate Dean, Professor Fiona Wheeler, and the Head of School, Professor Stephen Bottomley. We have also benefitted from the guidance of

¹ National Research Council of the National Academies (2009), *A New Biology for the 21st Century*, Washington DC: The National Academies Press, 3.

Professor Tim Bonyhady, the director of the Australian Centre for Environmental Law and the Centre for Climate Law and Policy, and Professor Kim Rubenstein, the director of the Centre of International and Public Law. We also acknowledge the legacy of Emeritus Professor Dennis Pearce who established the intellectual property concentration at the ANU College of Law. We have also learnt much from our fellow intellectual property researchers at the ANU – including Dr Miranda Forsyth, Dr Sarah Holcombe, Professor Peter Veth, Dr Judith Bannister (now at the University of Adelaide), Hafiz Aziz ur Rehman, Gusman Siswandi, Terri Janke and Alan Hui.

Matthew Rimmer is a member of the research centre, the Australian Centre for Intellectual Property in Agriculture (ACIPA), which is based at the Australian National University and Griffith University. Versions of a couple of chapters were presented at events hosted by this centre. Matthew is grateful for the intellectual camaraderie of Professor Brad Sherman, Associate Professor Charles Lawson, Jay Sanderson, Associate Professor Leanne Wiseman, Stephen Hubicki and Dr Kathryn Adams; and for the administrative support of Carol Ballard.

Alison is a PhD candidate and would like to thank her PhD supervisors Professor Tim Bonyhady and Associate Professor Matthew Rimmer, and her advisor Associate Professor Barbara van Leeuwen. She is grateful for the support and guidance of the Director of Higher Degree Research at the ANU College of Law, Dr Mark Nolan, and for the administrative assistance of Dinah Irvine. Alison also appreciates the excellent training provided by the University's Centre for Educational Development and Academic Methods, particularly Dr Beth Beckman.

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We are grateful for the support and help of the publisher, Edward Elgar, and his team, including Tim Williams, John-Paul McDonald and Rebecca Hastie, and the series editor Graham Dutfield. Over the last decade, the publishing house has created an outstanding list of books on intellectual property. We are happy to be in such fine company.

The editors would like to thank their families and friends for their support and inspiration. Matthew Rimmer would particularly like to pay tribute to his parents, Professor Peter Rimmer and Dr Susan Rimmer;

Grandmother Ford; his siblings, Joe Rimmer and Rachel Rimmer; his wife, Dr Susan Harris Rimmer; and his children, Marina Rimmer and Joshua Rimmer. He would also like to pay respects to his uncle, Dr Ralph Rimmer (1926–2011), who was a glorious storyteller, a fine photographer and an outstanding Taid.

Alison would like to thank her parents, Margaret McCulloch and Dennis McLennan. She also appreciates the support and encouragement of her fellow research students at the ANU College of Law, particularly Elinor Jean, Brad Jessup, Mary Spiers Williams and Fanny Thornton.

This collection represents the law at July 2011.

